### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-006619 Address: 333 Burma Road **Date Inspected:** 29-Apr-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 1845 **Project Name:** SAS Superstructure **OSM Departure Time:** 645 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Chen Xi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG

## **Summary of Items Observed:**

Summary of Items Observed: On this date Caltrans OSM Quality Assurance (QA) Inspector, Larry Viars was present during the times noted above for observations relative to the work being performed.

Bay 2-

During random visual observations the QA inspector observed transverse cracks in OBG Segment 2AE Deck Panel to Floor Beam fillet weld SSD36-PP09.5-004. ZPMC Quality Control personnel had marked the area for weld repair. Please see the attached photo below of transverse cracking.

Bay 3-

QA Inspector observed the following work in progress: FCAW welding of weld joint 142 and 160 located on CB 202G-005. ZPMC welder was identified as 204338. ZPMC QC is identified as Chen Xi. The welding appeared to be in conformance with welding procedure specification, WPS-B-T-2132-3.

Bay 9-

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) of OBG deck panel u-rib Partial Joint Penetration (PJP) welds at tack weld locations. Caltrans NDT personnel performed conventional ultransonic testing of tack welds. Tack weld locations that exhibited crack like indications in the area of interest were marked

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and recorded prior to PAUT. PAUT was performed in accordance with Caltrans UT procedure "Phased Array Testing for detection of planar discontinuites (cracks) in PJP welds. Results of Deck Panels evaluated are as follows:

DP 367-001 (9CE) 90 locations tested with 30 locations rejected.

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## **Summary of Conversations:**

Only general conversations between QC and QA occurred this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150 0042 2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Viars,Larry	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer